

Appl. No. 10/783,533

Amdt. Dated September 20, 2004

Reply to Office Action of August 10, 2004

ATTORNEY DOCKET NO. 7083

REMARKS

Claims 1 - 6 have been rejected. Claims 1 - 6 remain in the application.

The specification has been objected to on the grounds that the chemical formula for hexanitrostilbene given on page 1, line 10 is incorrect. The appropriate correction is made in the amendments to the specification included with this response.

Claims 1 - 6 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Bellamy (EP 0277386 A2) on the grounds that Bellamy teaches a method for producing HNS II by using N-methylpyrrolidone as the recrystallizing solvent and using ultrasonic treatment to fracture the needle-shaped crystals (page 2, lines 49 - 52). Bellamy is cited in Example 8 as disclosing that 304 grams of HSN was dissolved in N-methylpyrrolidone at 125 degrees Celsius, then adding PhCl with stirring for 50 minutes while keeping the temperature at 125 degrees Celsius, cooling, transferring to a beaker in an ultrasonic bath with stirring for 2 hours, filtering off the solid and then washing and drying the solid. The Examiner noted that steps a through f of the present claimed invention is part of the recrystallization process that has been disclosed by Bellamy.

The Examiner states that the claims of the present application differ from the reference with respect to the ratio of hexanitrostilbene to n-methylpyrrolidone and with respect to the heating of the mixture to 82 degrees Celsius, but that it would have been obvious to optimize the ratio of hexanitrostilbene to n-methylpyrrolidone and the temperature to achieve the desired end result.

The Examiner cites that merely modifying process conditions such as temperature and concentration is not a patentable modification absent a showing of criticality.

The rejection is duly noted but applicants respectfully traverse.

The present invention does more than merely modify process conditions such as temperature and concentration. The unique feature of the present invention is the use of an aspirator for mixing the solution containing the HNS with the non-solvent. The aspiration step is included in part c of independent claims 1 and 6 as originally filed. It is this mixing stage that determines the size of the particles that are produced. Particle size and the related surface are a most important characteristic of HNS in many of its uses. An aspirator allows the mixing ratio of the two streams to remain constant.

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This differs from the addition of one constituent to a second using a manner in which the dilution is a continuous variable.

The cited reference of Bellamy neither teaches nor suggests the use of an aspirator. Thus, it is respectfully submitted that the present invention is a novel and unobvious advancement over the prior art because it utilizes a process step not envisioned by the prior art.

In view of the above amendments and remarks, it is respectfully submitted that the rejection is overcome and that claims 1 – 6 distinguish the present invention over the cited art and it is respectfully requested that a notice of allowance issue in due course.

Respectfully submitted.

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